UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
2100 RENAISSANCE BOULEVARD, SUITE 100
KING OF PRUSSIA, PENNSYLVANIA 19406-2713

July 30, 2012

Mr. Kenneth Langdon, Site Vice President
Nine Mile Point Nuclear Station, LLC
P.O. Box 63
Lycoming, NY 13093-0063

SUBJECT: NINE MILE POINT NUCLEAR STATION - NRC TRIENNIAL FIRE PROTECTION INSPECTION REPORT05000220/2012007 AND 05000410/2012007

Dear Mr. Langdon:

On June 22, 2012, the U.S. Nuclear Regulatory Commission (NRC) completed a triennial fire protection inspection at Nine Mile Point Nuclear Station Units 1 and 2. The enclosed inspection report documents the inspection results, which were discussed on June 22, 2012, with Mr. Mike Philippon, and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations, and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel. The inspectors also reviewed mitigation strategies for addressing large fires and explosions.

Based on the results of this inspection, no findings were identified.

In accordance with Title 10 of the Code of Federal Regulations Part 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web Site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

John F. Rogge, Chief
Engineering Branch 3
Division of Reactor Safety

Docket Nos. 50-220, 50-410
License Nos. DPR-63, NPF-69

Mr. Kenneth Langdon, Site Vice President
Nine Mile Point Nuclear Station, LLC
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/RA/

John F. Rogge, Chief
Engineering Branch 3
Division of Reactor Safety

Docket Nos. 50-220, 50-410
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DOCUMENT NAME: G:\DRS\Engineering Branch 3\Triennial Fire Protection IRs\Nine Mile Point\NMP1 & NMP2 FP 2012-07.doc
ADAMS ACCESSION NUMBER: ML12213A411

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Enclosure:
Inspection Report Nos. 05000220/2012007 and 05000410/2012007
w/Attachment: Supplemental Information

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket Nos.:	50-220; 50-410
License Nos.:	DPR-63; NPF-69
Report Nos.:	05000220/2012007 and 05000410/2012007
Licensee:	Nine Mile Point Nuclear Station, LLC (NMPNS)
Facility:	Nine Mile Point, Units 1 and 2
Location:	Oswego, NY
Dates:	June 4 - 22, 2012
Inspectors:	D. Orr, Senior Reactor Inspector (Team Leader) W. Schmidt, Senior Reactor Analyst R. Fuhrmeister, Senior Reactor Inspector L. Scholl, Senior Reactor Inspector K. Young, Senior Reactor Inspector T. O'Hara, Reactor Inspector J. Rady, Reactor Inspector
Approved by:	John F. Rogge, Chief Engineering Branch 3 Division of Reactor Safety

Enclosure

SUMMARY OF FINDINGS

IR 05000220/2012007, 05000410/2012007; 6/4/2012 - 6/22/2012; Nine Mile Point Nuclear Station, Units 1 and 2; Triennial Fire Protection Baseline Inspection.

The report covered a two-week triennial fire protection team inspection by specialist inspectors. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

No findings were identified.

REPORT DETAILS

Background

This report presents the results of a triennial fire protection inspection conducted in accordance with NRC Inspection Procedure (IP) 71111.05T, "Fire Protection." The objective of the inspection was to assess whether Nine Mile Point Nuclear Station, LLC (NMPNS) has implemented an adequate fire protection program and that post-fire safe shutdown capabilities have been established and are being properly maintained at the Nine Mile Point Nuclear Station, Units 1 and 2. The following fire areas (FAs) and fire zones (FZs) were selected for detailed review based on risk insights from the Nine Mile Point Nuclear Station, Units 1 and 2 Individual Plant Examinations of External Events (IPEEE).

Unit 1	Unit 2
• R3A	• 19/336 XLA
• T3B	• 34/212 SWB
• C1	• 26/372.1 NZ

Inspection of these zones fulfills the inspection procedure requirement to inspect a minimum of three samples.

The inspection team evaluated the licensee's fire protection program (FPP) against applicable requirements which included plant Technical Specifications, Operating License Conditions 2.D.(7) for Unit 1 and 2.F for Unit 2, NRC Safety Evaluations, 10 CFR 50.48, and 10 CFR 50, Appendix R and Branch Technical Position (BTP) Chemical Engineering Branch 9.5-1. The team also reviewed related documents that included the Updated Final Safety Analysis Reports (UFSAR) Section X.K for Unit 1 and Section 9.5.1 for Unit 2, the fire hazards analyses (FHA), and the post-fire safe shutdown analyses.

The team also evaluated six licensee mitigating strategies (two mitigating strategies that were specific for each unit as well as two that were applicable for both units) for addressing large fires and explosions as required by 10 CFR 50.54 (hh)(2) specifically for Unit 1 and Unit 2 and. Inspection of these strategies fulfills the inspection procedure requirement to inspect a minimum of one sample.

Specific documents reviewed by the team are listed in the attachment.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R05 Fire Protection (IP 71111.05T)

.01 Protection of Safe Shutdown Capabilities

a. Inspection Scope

The team reviewed the FHA, safe shutdown analyses and supporting drawings and documentation to verify that safe shutdown capabilities were properly protected. The

team ensured that applicable separation requirements of Section III.G of 10 CFR 50, Appendix R, BTP 9.5-1 and the licensee's design and licensing bases were maintained for the credited safe shutdown equipment and their supporting power, control and instrumentation cables. This review included an assessment of the adequacy of the selected systems for reactivity control, reactor coolant makeup, reactor heat removal, process monitoring, and associated support system functions.

b. Findings

No findings were identified.

.02 Passive Fire Protection

a. Inspection Scope

The team walked down accessible portions of the selected fire areas to evaluate whether the material conditions of the fire area boundaries were adequate for the fire hazards in the area. The team compared the fire area boundaries, including walls, ceilings, floors, fire doors, fire dampers, penetration seals, electrical raceway and conduit fire barriers, and redundant equipment fire barriers and radiant energy heat barriers to design and licensing basis requirements, industry standards, and the NMPNS FPP, as approved by the NRC, to identify any potential degradation or non-conformances.

The team reviewed selected engineering evaluations, installation and repair work orders, and qualification records for a sample of penetration seals to determine whether the fill material was properly installed and whether the as-left configuration satisfied design requirements for the intended fire rating.

In addition, the team reviewed recent test results for the carbon dioxide (CO_2) and Halon fire damper functionality tests for the areas protected to verify the testing was adequately conducted, the acceptance criteria were met, and any performance degradation was identified.

b. Findings

No findings were identified.

.03 Active Fire Protection

a. Inspection Scope

The team evaluated manual and automatic fire suppression and detection systems in the selected fire areas to determine whether they were installed, tested, maintained, and operated in accordance with NRC requirements, National Fire Protection Association (NFPA) codes of record, and the NMPNS FPP, as approved by the NRC. The team also assessed whether the suppression systems capabilities were adequate to control and/or extinguish fires associated with the hazards in the selected areas.

The team reviewed the as-built capability of the fire water supply system to verify the design and licensing basis and NFPA code of record requirements were satisfied, and to assess whether those capabilities were adequate for the hazards involved. The team reviewed the fire water system to assess the adequacy of a single fire water pump to supply the largest single hydraulic load on the fire water system plus concurrent fire hose usage. The team evaluated the fire pump performance tests to assess the adequacy of the test acceptance criteria for pump minimum discharge pressure at the required flow rate, to verify the criteria was adequate to ensure that the design basis and hydraulic analysis requirements were satisfied. The team also evaluated the underground fire loop flow tests to verify the tests adequately demonstrated that the flow distribution circuits were able to meet design basis requirements. In addition, the team reviewed recent pump and loop flow test results to verify the testing was adequately conducted, the acceptance criteria were met, and any potential performance degradation was identified.

The team reviewed design specifications, vendor requirements, modifications and engineering evaluations, and routine functional testing for the carbon dioxide (CO_2) and suppression systems for the areas protected. The team walked down accessible portions of the CO_2 systems, including storage tanks and supply systems, to independently assess the material condition, operational lineup, and availability of the systems. The team also reviewed and walked down the associated fire fighting strategies and CO_2 system operating procedures.

The team walked down accessible portions of the detection and water suppression systems in the selected areas and major portions of the fire water supply system, including motor and diesel driven fire pumps, interviewed system and program engineers, and reviewed selected condition reports (CRs) to independently assess the material condition of the systems and components. In addition, the team reviewed recent test results for the fire detection and suppression systems for the selected fire areas to verify the testing was adequately conducted, the acceptance criteria were met, and any performance degradation was identified.

The team assessed the fire brigade capabilities by reviewing training, qualification, and drill critique records. The team also reviewed NMPNS's fire fighting strategies (i.e., pre-fire plans) and smoke removal plans for the selected fire areas to determine if appropriate information was provided to fire brigade members and plant operators to identify safe shutdown equipment and instrumentation, and to facilitate suppression of a fire that could impact post-fire safe shutdown capability. The team independently inspected the fire brigade equipment, including personnel protective gear (e.g., turnout gear) and smoke removal equipment, to determine operational readiness for fire fighting. In addition, the team reviewed NMPNS's fire brigade equipment inventory and inspection procedure and recent inspection and inventory results to verify adequate equipment was available, and any potential material deficiencies were identified.

b. Findings

No findings were identified.

.04 Protection From Damage From Fire Suppression Activities

a. Inspection Scope

The team performed document reviews and plant walkdowns to verify that redundant trains of systems required for hot shutdown, which are located in the same fire area, are not subject to damage from fire suppression activities or from the rupture or inadvertent operation of fire suppression systems. Specifically, the team verified that:

- A fire in one of the selected fire areas would not indirectly, through production of smoke, heat or hot gases, cause activation of suppression systems that could potentially damage all redundant safe shutdown trains;
- A fire in one of the selected fire areas (or the inadvertent actuation or rupture of a fire suppression system) would not indirectly cause damage to all redundant trains (e.g., sprinkler caused flooding of other than the locally affected train); and,
- Adequate drainage is provided in areas protected by water suppression systems.

b. Findings

No findings were identified.

.05 Post-Fire Safe Shutdown Capability – Normal and Alternative

a. Inspection Scope

The team reviewed the safe shutdown analysis, operating procedures, piping and instrumentation drawings (P&IDs), electrical drawings, the UFSAR and other supporting documents for the selected fire areas to verify that the licensee had properly identified the systems and components necessary to achieve and maintain safe shutdown conditions. The team assessed the adequacy of the selected systems and components for reactivity control, reactor coolant makeup, reactor heat removal, process monitoring, and support system functions. This review included verification that alternative post-fire shutdown could be performed both with and without the availability of offsite power. Plant walkdowns were also performed to verify that the plant configuration was consistent with that described in the safe shutdown and fire hazards analyses. The team verified that the systems and components credited for use during shutdown would remain free from fire damage.

The team verified that the training program for licensed and non-licensed operators included alternative shutdown capability. The team also verified that personnel required for safe shutdown using the normal or alternative shutdown systems and procedures are trained and available onsite at all times, exclusive of those assigned as fire brigade members.

The team reviewed the adequacy of procedures utilized for post-fire shutdown and performed an independent walk through of procedure steps to ensure the implementation and human factors adequacy of the procedures. The team also verified that the operators could be reasonably expected to perform specific actions within the time required to maintain plant parameters within specified limits.

Specific procedures reviewed for normal and alternative post-fire shutdown included the following:

- EPIP-EPP-28, Firefighting, Rev. 01602;
- N1-SOP-21.1, Fire in Plant, Rev. 00600;
- N1-SOP-21.2, Control Room Evacuation, Rev. 00600;
- N2-ARP-FPM, Fire Computer System Alarm Response Procedures, Rev. 00500
- N2-ARP-849100, @CEC-PNL849 Series 100 Alarm Response Procedure, Rev. 00200; and,
- N2-SOP-78, Control Room Evacuation, Rev. 00700.

The team reviewed manual actions to ensure that they had been properly reviewed and approved and that the actions could be implemented in accordance with plant procedures in the time necessary to support the safe shutdown method for each fire area. The team also reviewed the periodic testing of the alternative shutdown transfer capability and instrumentation and control functions to ensure the tests are adequate to ensure the functionality of the alternative shutdown capability.

b. Findings

No findings were identified.

.06 Circuit Analysis

a. Inspection Scope

The team verified that the licensee performed a post-fire safe shutdown analysis for the selected fire areas and the analysis appropriately identified the structures, systems, and components important to achieving and maintaining safe shutdown. Additionally, the team verified that the licensee's analysis ensured that necessary electrical circuits were properly protected and that circuits that could adversely impact safe shutdown due to hot shorts or shorts to ground were identified, evaluated, and dispositioned to ensure spurious actuations would not prevent safe shutdown.

The team's review considered fire and cable attributes, cable routing, potential undesirable consequences and common power supply/bus concerns. Specific items included the credibility of the fire threat, cable insulation attributes, cable failure modes, and actuations resulting in flow diversion or loss of coolant events.

The team also reviewed cable raceway drawings and/or cable routing databases for a sample of components required for post-fire safe shutdown to verify that cables were routed as described in the safe-shutdown analysis. The team also reviewed equipment important to safe shutdown, but not part of the success path, to verify that the licensee had taken appropriate actions in accordance with the design and licensing basis and NRC Regulatory Guide 1.189, Revision 2.

Circuit analysis was performed for the following components:

- PMP 81-23, Core Spray Pump;
- IV 81-21, Core Spray Pump Suction Valve;
- IV 38-02, Shutdown Cooling Pump Isolation Valve;
- LI 36-09, Reactor Vessel Level Indicator;
- 2RHS*P1A, Residual Heat Removal (RHR) Pump A;
- 2RHS*MOV9B, RHR Heat Exchanger Shell Side Inlet Valve;
- 2RHS*MOV1A, RHR Pump P1A Suction Valve; and,
- 2RSS*LI101, Reactor Vessel Level Indicator.

The team reviewed a sample of circuit breaker coordination studies to ensure equipment needed to conduct post-fire safe shutdown activities would not be impacted due to a lack of coordination that could result in a common power supply or common bus concern.

The team verified that the transfer of control from the control room to the alternative shutdown location(s) would not be affected by fire-induced circuit faults (e.g., by the provision of separate fuses and power supplies for alternative shutdown control circuits).

b. Findings

No findings were identified.

.07 Communications

a. Inspection Scope

The team reviewed safe shutdown procedures, the safe shutdown analysis, and associated documents to verify an adequate method of communications would be available to plant operators following a fire. During this review, the team considered the effects of ambient noise levels, clarity of reception, reliability, and coverage patterns. The team also inspected the designated emergency storage lockers to verify the availability of portable radios for the fire brigade and for plant operators. The team also verified that communications equipment, such as repeaters and transmitters, would not be affected by a fire.

b. Findings

No findings were identified.

.08 Emergency Lighting

a. Inspection Scope

The team observed the placement and coverage area of eight-hour emergency lights throughout the selected fire areas to evaluate their adequacy for illuminating access and egress pathways and any equipment requiring local operation or instrumentation monitoring for post-fire safe shutdown. The team also verified that the battery power supplies were rated for at least an eight-hour capacity. Preventive maintenance procedures, the vendor manual, completed surveillance tests, and battery replacement practices were also reviewed to verify that the emergency lighting was being maintained consistent with the manufacturer's recommendations and in a manner that would ensure reliable operation.

b. Findings

No findings were identified.

.09 Cold Shutdown Repairs

a. Inspection Scope

For Unit 1: The team verified that the licensee had dedicated repair procedures, equipment, and materials to accomplish repairs of components required for cold shutdown which might be damaged by the fire to ensure cold shutdown could be achieved within the time frames specified in their design and licensing bases. The team verified that the repair equipment, components, tools, and materials (e.g., pre-cut cables with prepared attachment lugs) were available and accessible on site.

For Unit 2: The team reviewed the safe shutdown analysis and verified that there were no repairs necessary to achieve cold shutdown following a fire in the plant. The team verified there were sufficient separation, isolation, and redundancy of systems necessary for post-fire safe shutdown, that repair procedures and equipment to achieve cold shutdown were not necessary. Additionally, the team verified that sufficient systems were available from either the control room or the remote shutdown panels to achieve and maintain hot and cold shutdown conditions without repairs.

b. Findings

No findings were identified.

.10 Compensatory Measures

a. Inspection Scope

The team verified that compensatory measures were in place for out-of-service, degraded or inoperable fire protection and post-fire safe shutdown equipment, systems, or features (e.g., detection and suppression systems and equipment, passive fire

barriers, or pumps, valves or electrical devices providing safe shutdown functions or capabilities). The team also verified that the short term compensatory measures compensated for the degraded function or feature until appropriate corrective action could be taken and that the licensee was effective in returning the equipment to service in a reasonable period of time.

The team reviewed compensatory measures in the form of manual actions for 10 CFR Part 50, Appendix R, Section III.G.2 areas to verify that there is reasonable assurance that manual actions can be accomplished. Specific attributes reviewed include diagnostic instrumentation, environmental consideration, staffing, communications, equipment availability, training, procedures, and verification and validation.

b. Findings

No findings were identified.

.11 Fire Protection Program Changes

a. Inspection Scope

The team reviewed recent changes to the approved fire protection program to verify that the changes did not constitute an adverse effect on the ability to safely shutdown.

b. Findings

No findings were identified.

.12 Control of Transient Combustibles and Ignition Sources

a. Inspection Scope

The team reviewed the licensee's procedures and programs for the control of ignition sources and transient combustibles to assess their effectiveness in preventing fires and in controlling combustible loading within limits established in the FHA. A sample of hot work and transient combustible control permits were also reviewed. The team performed plant walkdowns to verify that transient combustibles and ignition sources were being implemented in accordance with the administrative controls.

b. Findings

No findings were identified.

.13 Large Fires and Explosions Mitigation Strategies

a. Inspection Scope

The team reviewed the licensee's preparedness to handle large fires or explosions by reviewing six licensee mitigating strategies (two mitigating strategies that were specific to each unit as well as two that were applicable for both units) to verify they continue to meet 10 CFR 50.54 (hh)(2) by determining that:

- Procedures are being maintained and adequate;
- Equipment is properly staged and is being maintained and tested; and,
- Station personnel are knowledgeable and can implement the procedures.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES [OA]

4OA2 Identification and Resolution of Problems

.01 Corrective Actions for Fire Protection Deficiencies

a. Inspection Scope

The team verified that the licensee was identifying fire protection and post-fire safe shutdown issues at an appropriate threshold and entering them into the corrective action program. The team also reviewed a sample of selected issues to verify that the licensee had taken or planned appropriate corrective actions.

b. Findings

No findings were identified.

4OA6 Meetings, including Exit

Exit Meeting Summary

The team presented their preliminary inspection results to Mr. Mike Philippon, Plant General Manager, and other members of the site staff at an exit meeting on June 22, 2012. No proprietary information was included in this inspection report.

ATTACHMENT: SUPPLEMENTAL INFORMATION

ATTACHMENT

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

M. Philippon, Plant General Manager
J. Blasiak, Fire Protection System Engineer
W. Bush, Fire Protection Technical Lead
P. Carroll, Plant Equipment Operator
K. Cherchio, Reactor Operator
B. Geiss, Senior Reactor Operator
B. Law, Maintenance Electrician
R. Mason, Plant Equipment Operator
R. Pellegrino, Operations Instructor
R. Saunderson, Engineering Programs
S. Savar, Safe Shutdown Engineer
W. Schultz, Plant Equipment Operator
R. Schulz, Safe Shutdown Engineer
W. Sullivan, Fire Protection Engineer
T. Syrell, Electrical Maintenance Supervisor
D. Vanamee, Fire Marshall
C. Willett, Safe Shutdown Engineer

NRC

J. Rogge, Chief, Engineering Branch 3, Division of Reactor Safety
K. Kolaczyk, Senior Resident Inspector, Nine Mile Point Nuclear Station
D. Dempsey, Resident Inspector, Nine Mile Point Nuclear Station

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

NONE

LIST OF DOCUMENTS REVIEWED

Fire Protection Licensing Documents
NMP Unit 1 Fire Hazards Analysis, Rev. 21
NMP Unit 1 Fire Protection Program, Rev. 16
NMP Unit 1 Safe Shutdown Analysis, Rev. 22
NMP Unit 2 Fire Hazards Analysis, Rev. 10
NMP Unit 2 Fire Protection Program, Rev. 10
NMP Unit 2 Safe Shutdown Analysis, Rev. 13
NUREG-1047, Safety Evaluation Report (SER) Unit 2 2/85
NUREG-1047, Supplement No. 2, SER Unit 2 11/85
NUREG-1047, Supplement No. 4, SER Unit 2 9/86
NUREG-1047, Supplement No. 5, SER Unit 2 0/86
Safety Evaluation, Nine Mile Point Unit 2 Extended Power Uprate, 12/22/11
Unit 1 Exemption – 10 CFR 50.48 Fire Protection and Appendix R to 10 CFR Part 50, 3/21/83

Design Basis Documents
DBD-Appendix R, NMP Unit 2 Appendix R Safe Shutdown System, Rev. 10
NFPA 12-1977, Standard on Carbon Dioxide Extinguishing Systems
NFPA 12-2008, Standard on Carbon Dioxide Extinguishing Systems
NFPA 20-1976, Standard for the Installation of Centrifugal Fire pumps
NFPA 20-2007, Standard for the Installation of Stationary Pumps for Fire Protection
Specification No. 12177-NMP2-P402G, Nine Mile Point Nuclear Station Unit 2; Specification for Water Spray, Sprinkler, and Foam Fire Protection Systems, 4/28/87
Specification No. NMP2-CO73U, Revision 2, 10/25/85; Specification for Fire Detection and Control System, Nine Mile Point Nuclear Station, Unit 2, Niagara Mohawk Power Station, Rev. 2

Design Changes
DCR N1-88-091, Replace MG Set 162 & 172 with UPS's, 3/4/93
ECP-10-000313-CN-455, A10.1-E-142-01.00, RHS Hydraulic Calculation, Rev. 2
ECP-10-000468, U1 Battery Test Connections & Cell Voltage Sensing Leads, Rev. 0001
ECP-11-000714, Wireless Radio Upgrade, Rev. 0000
ECP-12-000309, U1 Hydrogen Water Chemistry – Low Power Operation, Rev. 0000
NMP0-COR.00, Modification Scoping Document, Nine Mile Point U1 & 2 Wireless Radio Upgrade, Rev. 0
PCR-12-03737, Addition of Step for RCIC Reactor Operator to Obtain "X" Key Prior to Control Room Evacuation & Reaching the Remote Shutdown Panel, Rev. 1

Calculations/Engineering Evaluation Reports
120VAC-RPS11/12-PDCS, RPS Buses 11 and 12 Fuse Coordination, Rev. 1
125VDCBB11/BB12PDCS, Coordination Study for Battery Boards 11 And 12, Rev 2
125VDCSYSTEMAPPR, 125VDC System Appendix R Battery Sizing, Rev. 6
4160VAC-PB102&103-PDCS, Coordination and Protective Study for Power Boards 102 and 103, Rev. 0
600VACPB16PDCS, Power Board 16 Coordination Study, Rev. 3
600VACPB17PDCS, Power Board 17 Coordination Study, Rev. 4
A10.1-E-142, Unit 2, Residual Heat Removal System (RHS) Hydraulic Calculation, Rev. 01

Battery Charger MG Sets 161 and 171 and Associated Cables Between Power Boards 16/17 and Battery Boards 11/12, 11/25/90
E21RPSUPSES, Motor Generator Sets 162 and 172 Sizing Calculation, Rev. 8
FPEE-0-03-002, Revision 1, Evaluation of Interim Action Taken to Prevent Personnel Injury from CO2, 5/14/09
FPEE-0-03-005, Removal of Fire Hydrant Hose Houses and Consolidation of Hose House Equipment
FPEE-1-04-004, Validation of NMP1 Fire Safe Shutdown Manual Actions, Rev. 2
FPEE-1-90-016, Fire Protection/Appendix R Separation Analysis of NMP-1
FPEE-2-06-001, Validation of NMP2 Post Fire Safe Shutdown Procedures, Rev. 0
FPEE-2-06-003, Validation of NMP2 Post Fire Safe Shutdown Manual Actions, Rev. 0
FPEE-2-10-001, Fire Protection Evaluation, NMP2 Evaluation of Alternate Compensatory Measures as Required by Enforcement Guidance Memorandum, EGM 09-002, Rev. 0
GE-NE-B13-01869, Appendix R Safe Shutdown Evaluation NMP Nuclear Station, Unit 2, Rev. 1
Nine Mile Point Unit 2 CO2 Fire Suppression System Alternative Analysis, Report No.: 07-0404-02, Rev. 0
PX-00290, Unit 2, HPCS MSO Reactor Overfill Analysis, Rev. 0
PX-00291, Unit 2, HPCS MSO Reactor Overfill Pipe Analysis, Rev. 0
S22.2-XX-EOP001, NMP1 Appendix R Safe Shutdown Analysis with 2 EC's, Rev. 1

Procedures

CNG-CM-1.01-1003, Design Engineering and Configuration Control, Rev. 00500
CNG-NL-1.01-1011; 10 CFR 50.59/10 CFR 72.48 Applicability Determinations, Screenings and Evaluations, Rev. 00200
EPIP-EPP-02, Classification of Emergency Conditions at Unit 2, Rev. 01801
EPIP-EPP-17, Emergency Communications Procedure, Rev. 01401
EPIP-EPP-18, Activation and Direction of the Emergency Plans, Rev. 02002
EPIP-EPP-20, Emergency Notifications, Rev. 02602
EPIP-EPP-28, Firefighting, Rev. 01602
EPIP-EPP-32, Resource and Communications Contingency Guidelines, Rev. 00900
EPMP-EPP-02, Emergency Equipment Inventories and Checklists, Rev. 04201
GAP-FPP-02, Control of Hot Work, Rev. 013-00
GAP-FPP-03, Breach Permits, Rev. 014-00
GAP-INV-02, Control of Material Storage Areas, Rev. 026-00
N1-DRP-GEN-004, Emergency Damage Repair for Fire Zones C2 and C3, Rev. 01000
N1-DRP-GEN-005, Emergency Damage Repair - Fire Area 5 Turbine Building Elevation 261' and 277', Rev. 00700
N1-DRP-OPS-001, Emergency Damage Repair, Rev. 00901
N1-EPM-GEN-152, Inspection and Preventive Maintenance for AKF-1B-10 Breakers, Rev. 2
N1-EPM-GEN-183, Molded Case Circuit Breaker Inspection, Rev. 3
NIP-LPP-01, Rev. 02100, Control Of NRC-Approved Plans and Programs, Rev. 02100
S-MAP-MAI-0501, Guidelines for Fuse Replacement, Rev. 5
S-ODP-INV-0101, Control Room Spare Fuse Control, Rev. 1
S-SAD-FPP-0105, Compensatory Measures for Inoperable Fire Protection Systems and Components, Rev. 01800
S-SAD-FPP-0106, Preparation and Control of Pre-Fire Plans, Rev. 5

Operations Procedures
GAP-OPS-06, Communications Systems, Rev. 00700
N1-EOP-1, NMP1 EOP Support Procedure, Rev. 01100
N1-EOP-2, RPV Control, Rev. 01500
N1-EOP-4, Primary Containment Control, Rev. 01500
N1-EOP-8, RPV Blowdown, Rev. 01100
N1-OP-13, Emergency Cooling System, Rev. 03600
N1-OP-4, Shutdown Cooling System, Rev. 03600
N1-OP-47A, 125 VDC Power System, Rev. 02300
N1-OP-48, Motor Generator Sets, Rev. 02700
N1-OP-51, Unit 1, Communications System, Rev. 01000
N1-SOP-1, Reactor Scram, Rev. 02200
N1-SOP-29.1, EOP Key Parameter-Alternate Instrumentation, Rev. 00101
N2-ARP-01, Unit 2, Control Room Alarm Response Procedures, Rev. 00002
N2-ARP-849100, Unit 2, 2CEC-PNL849 Series 100 Alarm Response Procedure, Rev. 00200
N2-ARP-849200, Unit 2, 2CEC-PNL849 Series 200 Alarm Response Procedure, Rev. 00201
N2-ARP-FPM, Unit 2, Fire Computer System Alarm Response Procedures, Rev. 00500
N2-OP-100A, Unit 2, Standby Diesel Generators, Rev. 01101
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N2-OP-53A, Rev. 01101, Control Building Ventilation System, Rev. 01101
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N2-OP-76, Plant Communications, Rev. 00201
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N2-SOP-34, Unit 2, Stuck Open Safety Relief Valve, Rev. 04
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N1-DRP-OPS-0001, Emergency Damage Repair, Rev. 00901
N2-DRP-OPS-0001, Emergency Damage Repair, Rev. 00502
N2-PM-A006, B.5.b. Pump Annual Flow Test, Rev. 00300
S-DRP-OPS-003, Portable Pump Operation and Deployment, Rev. 00500
SEDMG-01, Loss of Large Area of the Station, Rev. 1
S102-SIMTRA031A, TRA-31 DMS-SE3, Security Event Mitigating Strategy, Rev. 0

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EPMP-EPP-02, Emergency Equipment Inventories and Checklists, Attachment 22 – Electric Damage Repair Equipment Inventory, performed 2/15/12
N1-FST-FPL-A-001, Low Pressure Carbon Dioxide System Functional Test, performed 5/22/11 - 10/17/11
N1-FST-FPW-5A001, Fire Protection System Water Flow Test, performed 11/17/05 & 7/16/11
N1-ISP-036-003, Hi Lo Reactor Water Level Instrument Trip Channel Test/Calibration, Performed 3/16/11 and 3/21/12
N1-ISP-060-004, Remote Shutdown Emergency Condenser Level Control Loop Calibration, Performed 11/18/11
N1-ISP-201-044, Torus Temperature Monitoring System Remote Shutdown Panels, Performed 1/6/12
N1-PM-C3, Electric and Diesel Fire Pump Performance Tests, performed 9/1/10, 9/28/10, 9/23/11, & 11/17/11
N1-ST-R12, Initiation of ECS from RSP 11 and 12 Operability Test, performed 4/10/11 and 4/12/11
N2-EPM-RSS-578, 2CES*PNL415 and 2CES*PNL416 Switch Checks, performed 4/11/10
N2-EPM-RSS-578, 2CES*PNL415 and 2CES*PNL416 Switch Checks, performed 5/22/12
N2-FPM-FPE-M002, Fire Protection Monthly Inspection, performed 3/18/12
N2-FPM-FPE-M002, Fire Protection Monthly Inspection, performed 4/17/12
N2-FPM-FPE-M002, Fire Protection Monthly Inspection, performed 5/19/12
N2-FPM-FPP-R002, Bop Fire Damper Operation and Inspection, performed 4/9/08
N2-FPM-FPP-R002, BOP Fire Damper Operation and Inspection, performed 10/8/10
N2-FSP-FPL-R001, Low Pressure Carbon Dioxide System Functional Test, performed 3/18/12
N2-FSP-FPL-R001, Low Pressure Carbon Dioxide System Functional Test, performed 2/26/10
N2-FSP-FPL-R001, Low Pressure Carbon Dioxide System Functional Test, performed 8/7/10
N2-FSP-FPP-R001, Fire Rated Assemblies and Watertight Penetration Visual Inspection, performed 5/16/12
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N2-IPM-GAI-001, Unit 2, GAI-TRONIC Communications Verification Test, performed 8/27/11
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12-003, NRC Triennial Fire Protection Inspection Readiness Assessment, 2/27/12

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Unit 1 DC Systems, 1st Qtr. 2012
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0007.243-001-024, Unit 2, Elementary Diagram, HPCS Power Supply System, Rev. 2
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0007-241-001-018, Elementary Diagram Residual Heat Removal System, Rev. 4
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0007-241-001-034, Elementary Diagram Residual Heat Removal System, Rev. 5
0007-510-980-742, Wiring Diagram Remote Shutdown Panel 2CES*PNL 405, Rev. 1
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12177-EE-34HH-5, Sht. 2, Cable Tray Identification Control Bldg El237'-0" & 244'-0", Rev. 5
12177-EE-37B-14, Sht. 2, Arrgt CA Tray Openings & Sleeves Control Building, Rev. 14
12177-EE-37DC-7, Sht. 6, Arrgt CA Tray Openings & Sleeves Control Building, Rev. 7
12177-EE-3KY-4, External Wiring Diagram 2CES*PNL 517, 2CES-IPNL207 & 2CES-IPNL402, Rev. 4
12177-EE-3MA-6, Wiring Diagram Remote Shutdown Panel 2CES*PNL 405, Rev. 6
12177-EE-3MC-5, Wiring Diagram Remote Shutdown Panel 2CES*PNL 405, Rev. 6
12177-EE-3MF-4, Wiring Diagram Remote Shutdown Panel 2CES*PNL405, Rev. 4
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12177-ESK-5RHS01, DC Elem Diag – 4.16kV Swgr Ckt Residual Heat Removal Pump 1A, Rev. 10
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B-40142-C, Sht. 5, Fire Zones Reactor Bldg. – Floor Elevation 237'-0", Rev. 1
B-40143-C, Sht. 5, Fire Zones Reactor Bldg. – Floor Elevation 261'-0", Rev. 1
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C-19389-C, Sht. 1, One Line Diagram – 125 VDC Control Bus, Rev. 13
C-19389-C, Sht. 2, One Line Diagram – 125 VDC Control Bus (Battery Board #12), Rev. 20
C-19389-C, Sht. 3, One Line Diagram – 125 VDC Control Bus (Battery Board #11), Rev. 20
C-19409-C, Sht. 10, One Line Diagram – Auxiliary System 600 Volt Power Boards 167 & 176, Rev. 41
C-19409-C, Sht. 1B, AC Station Power Distribution One-Line Diagram, Rev. 15
C-19409-C, Sht. 3, One Line Diagram 4.16KV Emergency System Power Boards 102 and 103, Rev. 26
C-19409-C, Sht. 6, One Line Diagram – Auxiliary System 600 Volt Power Boards 15, 153A, 153C & 155, Rev. 39

C-19409-C, Sht. 8, One Line Diagram – Auxiliary System 600 Volt Power Boards 16, 161A, & 161B, Rev. 51
C-19409-C, Sht. 9, One Line Diagram – Auxiliary System 600 Volt Power Boards 17, 171A, & 171B, Rev. 44
C-19410-C, Sht. 8, Elementary Wiring Diagram 4.16KV Emergency Power Boards and Diesel Generators, Rev. 19
C-19425-C, Sht. 4, Elementary Wiring Diagram, 4160 Volt Power Board 101 Control Circuits, Rev. 27
C-19437-C, Sht. 2, Elementary Wiring Diagram 600V Power Board 161B Control Circuits, Rev. 43
C-19437-C, Sht. 6, Elementary Wiring Diagram 600V Power Board 161B Control Circuits, Rev. 25
C-19437-C, Sht. 8, Elementary Wiring Diagram 600V Power Board 161B Control Circuits, Rev. 17
C-19438-C, Sht. 2, Elementary Wiring Diagram 600V Power Board 167 Control Circuits, Rev. 26
C-19516, Sht. 5, Lighting Plan Turbine Building FL. EL. 261'-0", Rev. 23
C-19839-C, Sht. 22, One Line Diagram 125VDC Control Bus, Rev. 11
C-19845-C, Sht. 1, Elementary Wiring Diagram DC Valve Board 12, Rev. 26
C-19859-C, Sht. 12, Elementary Wiring Diagram Reactor Protection System Vessel Isolation Shutdown and Cleanup, Rev. 34
C-19950-C, Sht. 1, One Line Diagram – Plant Control and Instrumentation Power Distribution, Rev. 27
C-19950-C, Sht. 2, One Line Diagram – Plant Control and Instrumentation Power Distribution, Rev. 18
C-22005-C, Interconnection Wiring Diagram Instrumentation System, Rev. 13
C-22276-C, Sht. 1, 4160V Power Board 102 Interconnection Diagram Units 2-1, 2-2, 2-3, Rev. 20
C-22482-C, Sht. 1, Connection Diagram, Electrical Fire Pump Control Panel, Rev. 9
C-23098-C, Sht. 1, Connection Diagram Auxiliary Control Cabinet 1 S63, Rev. 13
C-23099-C, Sht. 1, Interconnection Diagram Auxiliary Control Cabinet 1 S63, Rev. 20
C-23213-C, Sht. 2, Cable Allocation Thru Wall Sleeves and Duct Banks SL-12F, Rev. 21
C-23213-C, Sht. 3, Cable Allocation thru Wall Sleeves and Duct Banks Sl-11C, Rev. 43
C-34812-C, Sht. 2, Elementary Wiring Diagram Remote Reactor Shutdown System, Miscellaneous Instruments, Rev. 4
C-34816-C, Sht. 4, Front View and Layout Remote Reactor Shutdown Panel, Rev. 7
EB-22C, Sht. 3, Fire Protection Arrangement Unit 2 Station Buildings Plan El 237'-0" & 240'-0", Rev. 16
EE-003BW, External Connection Diagram PGCC Termination Cabinet 2CEC*PNL 748 Bay A, Rev. 9
EE-003CT, External Connection Diagram PGCC Termination Cabinet 2CEC*PNL705 Bay B, Rev. 12
EE-003DG, External Connection Diagram PGCC Termination Cabinet 2CEC*PNL 701 Bay E, Rev. 12
EE-003MD, Wiring Diagram Remote Shutdown Panel 2CES*PNL 405, Rev. 7
EE-008CF, External Connection Diagram 4.16kV Swgr 2ENS*SWG101 ACB101-3, 4 & 5, Rev. 11

EE-11C, 120Vac Wiring Diagram Distribution Panels, 2VSX*PNL101A & 2VBS*PNL 301B, Rev. 10
EE-3EW-8, External Connection Diagram PGCC Control Cabinet 2CEC*PNL 601, 602, 603, 612 & 613, Rev. 8
EE-3MG, Wiring Diagram Remote Shutdown Panel 2CES*PNL 405, Rev. 4
EE-3RB, Wiring Diagram Misc Field Instrumentation, Rev. 13
EE-65E, Sht. 1, Lighting Plan Control Building EL 306' 0", Rev. 12
EE-9NK, 600V Wiring Diagram 2EHS*MCC303 Bus D Control Room Bldg El 261'-0", Rev. 5
EE-M01A, Unit 2, Plant Master One Line Diagram, Normal Power Distribution, Rev. 20
EE-M01B, Unit 2, Plant Master One Line Diagram, Emergency Power Distribution, Rev. 8
ESK-3K, Sht. 1, Control Switch Contact Diagram, Rev. 12
ESK-3K, Sht. 2, Control Switch Contact Diagram, Rev. 13
ESK-3K, Sht. 3, Control Switch Contact Diagram, Rev. 7
ESK-3P, Sht. 1, Control Switch Contact Diagram, Rev. 9
ESK-3P, Sht. 2, Control Switch Contact Diagram, Rev. 8
ESK-3P, Sht. 3, Control Switch Contact Diagram, Rev. 7
ESK-6RHS35, A.C. Elementary Diagram 600V MCC Circuit Residual Heat Removal Heat Exchanger Shell Side MOV, Rev. 7
F-39697-C, Reactor Building Wall Penetration 'K' Row Looking South, 'J' Row looking North, 'H' Row Looking North, '5' Row Looking West, Rev. 1
F-39709-C, Unit 2, Emergency Battery Power Pack Locations, Reactor Building – FL. EL. 237'-0", Turbine Building – FL. EL. 250'-0", Rev. 10
F-39710-C, Emergency Battery Pwr. Pk. Locations - Reactor Building FL. EL 261'-0", Turbine Building FL. EL. 261'-0", Rev. 6
F-39711-C, Unit 2, Emergency Battery Power Pack Locations, Reactor Building – FL. EL. 281'-0",Turbine Building – FL. EL. 277'-0", Rev. 10
FSK-27-19B, Loop Diagram 2RSS*101, Rev. 2
TL2RSS-003, Sht. 1, Test Loop Diagram Reactor Vessel Level 2RSS*LT101, Rev. 1

Piping and Instrumentation Diagrams
C-18002-C, Sht. 1, Steam Flow – Main Steam & High Press. Turbine, Rev. 45
C-18005-C, Sht. 1, Feed Water Flow – High Pressure, Rev. 42
C-18005-C, Sht. 2, Feed Water Flow – High Pressure, Rev. 38
C-18006-C, Sht. 1, Drywell & Torus Isolation Valves, Rev. 41
C-18006-C, Sht. 2, Drywell & Torus Isolation Valves, Rev. 32
C-18007-C, Sht. 1, Reactor Core Spray, Rev. 58
C-18007-C, Sht. 2, Reactor Core Spray, Rev. 5
C-18009-C, Sht. 1, Reactor Cleanup, Rev. 58
C-18011-C, Sht. 2, Instrument Air, Rev. 49
C-18012-C, Sht. 1, Reactor Containment Spray Raw Water, Rev. 25
C-18012-C, Sht. 2, Reactor Containment Spray, Rev. 47
C-18015-C, Reactor Vessel Instrumentation, Rev. 42
C-18016-C, Sht. 1, Control Rod Drive, Rev. 42
C-18017-C, Sht. 1, Emergency Cooling, Rev. 55
C-18018-C, Sht. 1, Reactor Shutdown Cooling, Rev. 31
C-18022-C, Sht. 1, Service Water – Reactor & Turbine Buildings, Rev. 71
C-18026-C, Sht. 1, Emergency Diesel Generator #102 Starting Air, Cooling Water, Lube Oil & Fuel, Rev. 24

C-18026-C, Sht. 2, Emergency Diesel Generator #103 Starting Air, Cooling Water, Lube Oil & Fuel, Rev. 26
C-18030-C, Sht. 3, Fire Protection Water System, Rev. 38
C-18030-C, Sht. 4, Fire Protection Water System, Rev. 19C-18006-C, Sht. 2, Drywell and Torus Isolation and Blocking Valves P&ID, Rev. 32
PID-11-1, Sht. 1, Unit 2, Service Water System Fundamental, Rev. 1
PID-11A, Unit 2, Service Water System, Rev. 18
PID-11B, Unit 2, Service Water System, Rev. 19
PID-11C, Unit 2, Service Water System, Rev. 15
PID-11D, Unit 2, Service Water System, Rev. 12
PID-11E, Unit 2, Service Water System, Rev. 10
PID-11F, Unit 2, Service Water System, Rev. 25
PID-11G, Unit 2, Service Water System, Rev. 16
PID-11H, Unit 2, Service Water System, Rev. 32
PID-11J, Unit 2, Service Water System, Rev. 18
PID-11K, Unit 2, Service Water System, Rev. 8
PID-11L, Unit 2, Service Water System, Rev. 23
PID-11M, Unit 2, Service Water System, Rev. 16
PID-11N, Unit 2, Service Water System, Rev. 9
PID-11O, Unit 2, Service Water System, Rev. 9
PID-11P, Unit 2, Service Water System, Rev. 27
PID-28-3, Sht. 1, Unit 2, Nuclear Boiler & Process Instrumentation, Rev. 3
PID-28A-18, Unit 2, Nuclear Boiler and Process Instrumentation, Rev. 18
PID-28B-8, Unit 2, Nuclear Boiler and Process Instrumentation, Rev. 8
PID-31-1, Sht. 1, Unit 2, Residual Heat Removal System Fundamental, Rev. 2
PID-31A, Unit 2, Residual Heat Removal System, Rev. 21
PID-31B, Unit 2, Residual Heat Removal System, Rev. 19
PID-31C, Unit 2, Residual Heat Removal System, Rev. 15
PID-31D, Unit 2, Residual Heat Removal System, Rev. 21
PID-31E, Unit 2, Residual Heat Removal System, Rev. 21
PID-31F, Unit 2, Residual Heat Removal System, Rev. 16
PID-31G, Unit 2, Residual Heat Removal System, Rev. 15
PID-32-1, Sht. 1, Unit 2, Low Pressure Core Spray Fundamental, Rev. 2
PID-32A, Unit 2, Low Pressure Core Spray, Rev. 18
PID-33-1, Sht. 1, Unit 2, High Pressure Core Spray Fundamental, Rev. 1
PID-33A, Unit 2, High Pressure Core Spray, Rev. 1
PID-33B, Unit 2, High Pressure Core Spray, Rev. 14
PID-35-4, Sht.1, Unit 2, Reactor Core Isolation Cooling Fundamental, Rev. 5
PID-35A, Unit 2, Reactor Core Isolation Cooling, Rev. 16
PID-35B, Unit 2, Reactor Core Isolation Cooling, Rev. 14
PID-35C, Unit 2, Reactor Core Isolation Cooling, Rev. 27
PID-37-2, Sht. 1, Unit 2, Reactor Water Cleanup System Fundamental, Rev. 2

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N2-FPI-PFP-CB261-06
N2-FPI-PFP-CB306-02
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5107, Fire Brigade Training Certification
8569, Fire Brigade Training Certification
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Fire Brigade Member Qualification Matrix, 6/15/12
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Hot Work and Ignition Source Permits
Hot Work Permit 38981
Hot Work Permit 37965
Hot Work Permit 36787
Hot Work Permit 38976
Hot Work Permit 38977

Transient Combustible Evaluations
Material Storage Area Permit N1-554, Rev. 5
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N1-SD-004, Carbon Dioxide System – System Description, Rev. 2
N1-SD-017, Fire Detection System – System Description, Rev. 3
N1-SD-019, Foam-Water Sprinkler – System Description, Rev. 2
N1-SD-020, Halon 1301 Systems – System Description, Rev. 2
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Niagara Mohawk Power Corporation, Nine Mile Point Unit 2, Deficiency Report 20-474, CA4904, 6/16/86
Nine Mile Point Nuclear Station Buried Piping & Tanks Management Inspection Plan, June 2011

Nine Mile Point Nuclear Station Buried Piping & Tanks Management Inspection Plan, June 2011; Attachment 1: Buried Piping and Tanks Management Program Inspection Plan, 6/9/11
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Work Orders

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07-01007-06	C90831809	C91216062	C91424641
07-02412-45	C90905019	C91257603	C91566257
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LIST OF ACRONYMS

ADAMS	Agencywide Documents Access and Management System
BTP	Branch Technical Position
CFR	Code of Federal Regulations
CO_2	Carbon Dioxide
CR	Condition Report
DRS	Division of Reactor Safety
FA	Fire Area
FHA	Fire Hazards Analysis
FPP	Fire Protection Program
FZ	Fire Zone
IP	Inspection Procedure
IPEEE	Individual Plant Examination of External Events
IR	Inspection Report
NFPA	National Fire Protection Association
NMPNS	Nine Mile Point Nuclear Station
NRC	Nuclear Regulatory commission
P&ID	Piping and Instrumentation Drawing
PAR	Publicly Available Records
RHR	Residual Heat Removal
SCBA	Self-Contained Breathing Apparatus
SER	Safety Evaluation Report